

## CLAIMS

1           1.     Electrohydraulic servo door drive for operating a door, a window,  
2     etc., with a hold-open function, where, to implement the hold-open function, a valve is  
3     provided in the hydraulic circuit, characterized in that the valve is designed as a  
4     hydraulically controlled hold-open valve (20).

1           2.     Electrohydraulic servo door drive according to Claim 1, characterized in  
2     that the hold-open valve (20) consists of a 2/2-way directional control valve.

1           3.     Electrohydraulic servo door drive according to Claim 1, characterized in  
2     that the 2/2-way directional control valve is designed as a lockable nonreturn valve.

1           4.     Electrohydraulic servo door drive according to Claim 1, characterized in  
2     that the 2/2-way directional control valve is designed as a slide valve.

1           5.     Electrohydraulic servo door drive according to one of the preceding  
2     claims, characterized in that the hold-open valve (20) has a control piston (22) and a  
3     nonreturn valve (23).

1           6.     Electrohydraulic servo door drive according to one of the preceding  
2     claims, characterized in that either the nonreturn valve (23) or the control valve (22) of  
3     the hold-open valve (20) or both are spring-loaded by one or more spring elements (26,  
4     27).

1                   7. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the pressure in the piston space (1) of the servo door drive  
3 is higher than the control pressure in the hold-open valve (20).

1                   8. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the effective piston surface of the control piston (22) is  
3 larger than the sealing surface of the 2/2-way directional control valve.

1                   9. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that a motor (7), designed as a DC motor, as an electronically  
3 commutated motor, or as a speed-controlled AC or 3-phase motor, is provided in the  
4 hydraulic circuit to drive a pump (6).

1                   10. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the forward flow and the return flow of the hydraulic circuit  
3 are separated from each other.

1                   11. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the nonreturn valve (23) is integrated into the control piston  
3 (22) of the hold-open valve (20).

1                   12. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the nonreturn valve (23) is provided in a bypass (50)  
3 around the 2/2-way directional control valve.

1                   13. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that throttle valves (16, 17) are provided in the hydraulic circuit  
3 to control the opening and/or closing movement.

1                   14. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the hold-open valve (20) can be switched and/or controlled  
3 via the pressure of the pump (7).

1                   15. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that a valve (28) is installed parallel to the hold-open valve (20)  
3 in such a way that the leakage flow at the control piston can be adjusted effectively in  
4 order to control the switching speed of the hold-open valve (20).

1                   16. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the valve (28) has a closing body (29) acting on a spring  
3 (31), so that the valve (28) closes as a function of pressure and thus reduces the  
4 leakage flow which occurs during the opening process.

1                   17. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that a valve (28) is provided between a hydraulic line (41)  
3 leading from the pump (6) and a hydraulic line (46) leading to the tank space (8).

1                   18. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that an auxiliary device for performing a support function during  
3 the actuation of the door, window, etc., is provided.

1                    19. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the auxiliary device has a motor amplifier (51) connected to  
3 the motor (7), especially an amplifier which operates according to the PWM principle.

1                    20. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the motor amplifier (51) is connected to an controller and  
3 current regulator (52).

1                    21. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the motor amplifier (51) and the controller and current  
3 regulator (52) are each connected to a voltage supply (55).

1                    22. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the controller and current regulator (52) is connected to a  
3 position sensor (53), which cooperates with the pinion (5).

1                    23. Electrohydraulic servo door drive according to one of the preceding  
2 claims, characterized in that the controller and current regulator (52) has a D/A  
3 converter (54).